

Britannica's 44 Million Words Are Going On Line

By JOHN MARKOFF

Special to The New York Times

SAN FRANCISCO, Feb. 7 — Encyclopaedia Britannica, the publisher of the nation's oldest and most prestigious reference work, said today that it would enter the information age by offering electronic distribution of its materials to universities and some public libraries via the Internet, the world's largest computer network.

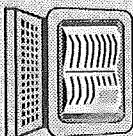
The development is one of the clearest indications that traditional publishers realize the limitations of offering only hard-bound volumes — and are concluding that the opportunities of on-line publishing outweigh the risks.

"Companies in the electronic publishing market are beginning to see they want the largest possible market," said Christopher Locke, general manager of Mecklermedia, a Westport, Conn., publishing and exhibition company. "They don't want to be trapped in markets that are Balkanized or private."

Several encyclopedias are already available on line, but the Encyclopaedia Britannica is the largest, with worldwide revenues of \$550 million a year.

Electronic Bookshelves

Encyclopedias available through on-line computer networks or the type of compact disks known as CD-ROM's.



Encyclopedia	Publisher	Network	CD-ROM
Compton's Interactive Encyclopedia	Compton's New Media	Prodigy, America Online	Yes
Encarta	Microsoft	None	Yes
Encyclopedia Britannica	Encyclopedia Britannica North America	Internet	Yes
Grolier Academic American	Grolier Electronic Publishing	America Online, CompuServe	Yes

It also represents a significant move toward instant information and a milestone in miniaturization for the 32-volume reference work, which contains 44 million words and 23,000 illustrations and adorns the bookshelves of millions of libraries and homes.

"This is a blessing for every school

kid," said Paul Saffo, a researcher at the Institute for the Future in Menlo Park, Calif. "We've all been there before, the night before we have a paper due in class."

The 225-year-old Encyclopaedia Britannica, which is the oldest continuously published encyclopedia in the

English language, will be made available initially to university faculty and students beginning in the fall using a variety of information-retrieval technologies that have been developed experimentally by Internet researchers and that are being quickly commercialized.

Encyclopedia Britannica executives said they were also planning to make their reference data base available to a larger commercial audience, but academic distribution would be a first step to insure that the electronic version of the encyclopedia was well tested.

"The whole development process has been an astonishing one for me," said Robert McHenry, editor in chief of the Britannica. "I've scrambled pretty hard just to keep up with the technical language."

The electronic version of the Encyclopaedia Britannica, to be called Britannica Online, is now being tested by students and faculty at the University of California at San Diego. The on-line version includes "hypertext" links that cannot be matched by the traditional text version.

This technology makes it possible

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Exchange: NY, NY, American
Lockheed System, (NSC) Nasdaq Small
Capitalization and (ECM) Emerging
Company Marketplace.

Adia Services Inc. (NMS)

	1993	1992
Qtr to Dec 31		
Revenue	247,033,000	211,226,000
Net inc	66,903,000	64,536,000
Share earnings	55	36
Yr rev	918,470,000	742,694,000
Net inc	620,350,000	612,136,000
Share earnings	1.64	.97

b-Included gain as a result of tax-sharing agreements with affiliated companies of \$2 million, or 16 cents a share, in the quarter and \$2.5 million, or 20 cents a share, in the year.

c-Included gain as a result of tax-sharing agreements with affiliated companies of \$1.44 million, or 11 cents a share, in the quarter and \$1.64 million, or 13 cents a share, in the year.

Allied Group Inc. (NMS)

	1993	1992
Qtr to Dec 31		
Revenue	121,822,866	116,650,715
Net inc	610,318,598	674,400,170
Share earnings	.66	.51
Yr rev	482,441,808	446,990,629
Net inc	639,922,421	628,674,952
Share earnings	2.61	1.94

b-Included realized investment gains of \$75,225 in the quarter and \$1,395,938, or 6 cents a share, in the year.

c-Included realized investment gains of \$13,147, or 1 cent a share, in the quarter and \$1,974,627, or 9 cents a share, in the year.

Arctco Inc. (NMS)

	1993	1992
Qtr to Dec 31		
Sales	88,161,000	63,327,000
Net inc	9,598,000	5,953,000
Share earnings	.49	.31
Yr rev	19,533,000	19,383,000
Net inc	232,478,000	148,801,000
Share earnings	26.26	18.57
Share outst	19,497,000	19,375,000

Automotive Industries Holding Inc. (NMS)

	1993	1992
Qtr to Jan 1		
Revenue	64,095,000	74,751,000

The Lockheed Corporation, one of the nation's largest military contractors, reported a 13 percent increase yesterday for its fourth-quarter earnings. The company's earnings of \$2.13 a share exceeded consensus expectations of analysts by 7 cents. The company's sales for the quarter were up 28 percent.

Lockheed, based in Calabasas, Calif., said its backlog at the end of the year was 50 percent higher than the \$19.4 billion backlog at the end of 1992, much of it a result of the purchase of the General Dynamics Corporation's F-16 fighter division.

Sales from the division, which makes F-16 fighters, helped raise Lockheed's revenue from foreign governments to 13 percent, from 8 percent a year earlier.

TIME WARNER INC. (N)

Time Warner Inc. reported yesterday its first profit after the payment of preferred dividends since Time Inc. and Warner Communications merged in 1989. The giant media and entertainment company posted net income of \$7 million, or 1 cent a share, in contrast to its loss of \$93 million, or 25 cents a share, in the period a year earlier. Revenues for the quarter jumped 9.6 percent, to \$4.12 billion.

The company attributed the performance to increased profits in its music, publishing and pay-television businesses, nothing that operating profits in cable and film entertainment had declined for the quarter.

Jessica Reif, an analyst who fol-

	1993	1992	%Ch
Qtr. to Dec 26			
Sales	3,739,000,000	2,920,000,000	+28
Net inc.	135,000,000	119,000,000	+13
Sh. earn	2.13	1.95	
Sh. out	63,400,000	61,100,000	
Yr. sales	13,071,000,000	10,100,000,000	+29
Net inc.	422,000,000	328,000,000	
Sh. earn	6.70	(4.58)	
Sh. out	62,900,000	61,700,000	
b-Net loss, which was after a charge of \$633 million, or \$10.23 a share, reflecting the adoption of FAS 106. (Loss)			

Yesterday's closing price:

\$64.75
Up 25¢

Brandy Brandon, a military and electronics analyst for Duff & Phelps, said Lockheed's revenue would continue to rise as arms buyers would continue to increase in the near term.

	1993	1992
Qtr to Dec 31		
Revenue	192,757,000	170,783,000
Net inc	15,517,000	12,037,000
Share earnings	.48	.53
Share outst	22,763,000	22,864,000
6mo sales	365,578,000	323,078,000
Net inc	28,537,000	22,578,000
Share earnings	1.25	.99
Share outst	22,758,000	22,861,000
Year-ago share earnings and shares outstanding are adjusted for a 4-for-3 stock split in April 1993.		

Franklin Electric Co. (NMS)

	1993	1992
Qtr to Jan 1		
Sales	52,105,000	49,029,000
Net inc	3,905,000	2,870,000
Share earnings	206,406,000	198,618,000
Net inc	617,094,000	613,811,000
Share earnings	2.52	1.88

b-Included a gain of \$93,000, or 15 cents a share, from change in accounting for income taxes.

c-Included an extraordinary tax credit of \$36,000, or 1 cent a share, in the quarter and \$156,000, or 3 cents a share, in the year.

Share earnings are fully diluted.

Handy & Harman (N)

	1993	1992
Qtr to Dec 31		
Sales	176,684,000	144,569,000
Net inc	2,229,000	2,885,000
Share earnings	.16	.21
Yr rev	658,253,000	572,210,000
Net inc	69,476,000	11,697,000
Share earnings	.48	.84

b-Included a gain of \$576,000, or 4 cents a share, from cumulative effect of change in accounting for income taxes.

Fiscal 1993 included a charge of \$2.8 million (\$1,663,000, or 12 cents a share after taxes) relating to the sale of the business units in the non-precious metal business segment.

Harsco Corp. (N)

	1993	1992
Qtr to Dec 31		
Sales	407,021,000	414,092,000
Net inc	16,120,000	25,150,000
Share earnings	.65	.98
Share outst	24,944,000	25,540,000
Yr sales	1,422,398,000	1,624,939,000
Net inc	687,618,000	684,332,000
Share earnings	3.50	3.75
Share outst	25,037,000	25,967,000

b-Included a gain of \$2,802,000, or 27 cents a share, from effect of a change in accounting for income taxes.

c-After a charge of \$7,184,000, or 27

Marsh Supermarkets (NMS)

	1994	1993
Qtr to Jan 1		
Sales	291,191,000	275,913,000
Net inc	1,568,000	1,854,000
Share earnings	.19	.24
Yr sales	951,147,000	900,571,000
Net inc	68,747,000	8,655,000
Share earnings	1.04	1.10

b-After a gain of \$1,941,000, or 23 cents a share, from an adjustment in accounting.

Masland Corp. (NMS)

	1993	1992
Qtr to Dec 31		
Sales	98,807,000	82,040,000
Net inc	3,884,000	2,405,000
Share earnings	.27	.13
Share outst	13,951,432	14,057,597
6mo sales	189,944,000	139,778,000
Net inc	7,166,000	3,188,000
Share earnings	.46	.18
Share outst	14,017,251	14,043,159
Shares outstanding were adjusted to give effect to conversion of class P common stock into common stock at time of initial public offering.		

MDU Resources Group Inc. (N)

	1993	1992
Qtr to Dec 31		
Revenue	177,616,000	164,800,000